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ABSTRACT

This essay identifies a set of research priorities that will enable those most responsible for U.S. higher education to shape the enterprise in more purposeful ways. The present discrepancy between ideals and realities makes it evident that higher education is less than it should be. The essay identifies three broad research priorities: (1) improving educational quality and institutional performance; (2) balancing market forces with higher education's public purposes; and (3) drawing new maps for a changing enterprise. Under each heading, the essay describes the context that gives rise to each of the research priorities, articulates key lines of inquiry, and provides examples that address the distinct perspectives of institutional leaders and policymakers. Relative weights have not been assigned to the proposed lines of inquiry, but the primary focus is on undergraduate education because both the number and diversity of students and the range of educational quality students experience are greatest in this area. (SLD)

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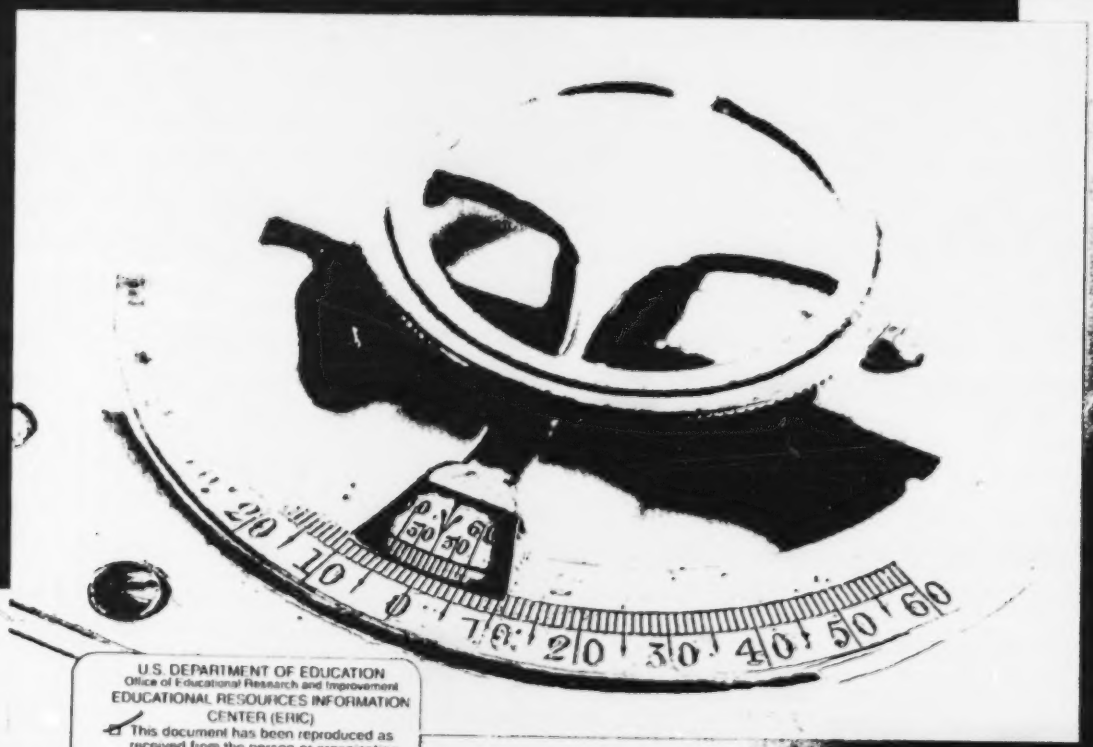
NATIONAL CENTER FOR POSTSECONDARY IMPROVEMENT

NCPI
National Center for Postsecondary Improvement

BEYOND DEAD RECKONING

Research Priorities for Redirecting American Higher Education



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In April of 2001, the U.S. Department of Education's Office of Educational Research and Improvement (OERI) invited the National Center for Postsecondary Improvement (NCPI) to undertake a year-long agenda-setting initiative to identify the most pressing issues confronting higher education, now and in the coming decade. In responding to this invitation, we consulted broadly with federal and state policymakers, higher education leaders and researchers, representatives of foundations, business executives, and members of the public. Some of these soundings derived from a series of national roundtables NCPI convened in the summer and fall of 2001; others resulted from Washington policy seminars and focus groups held during the past six years. The last phase of this consultation process was to share an initial draft of the essay for comment with all those who had participated in these forums and with a wide variety of other campus leaders, researchers, and policy analysts. Beyond these exchanges, the research priorities identified in this essay have been informed by the expertise of NCPI researchers and that of higher education researchers throughout the field. Interested readers should consult the NCPI website for publications that review the relevant literatures. [http://ncpi.stanford.edu]

This essay reflects an agenda that we believe has significance for the research community, but we have intentionally addressed the users of research. Thus we have not posed formal hypotheses to be tested nor specified particular methodologies. This essay is not an appeal to support the research interests of a particular set of investigators. Nor is it a research proposal for which NCPI seeks funding. Quite the contrary, with the publication of this essay, NCPI concludes its activities with a grateful thank you to the Department of Education for its support of our efforts over the past six years.

The project's guiding spirit has been to heighten the sense of urgency about the condition of the postsecondary enterprise and provide a persuasive rationale for developing state-of-the-art knowledge to further its improvement. We hope this statement of priorities will prove compelling to an array of funding agencies that are both committed to improving American higher education and are in a position to invest research funds to realize those interests.

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October 2002

BEYOND DEAD RECKONING

Research Priorities for Redirecting American Higher Education

Twice in the past 40 years, American higher education has engaged in a sustained reexamination of its purposes and effectiveness. From the late 1960s through the 1970s, the Carnegie Commission on Higher Education and its successor, the Carnegie Council on Policy Studies in Higher Education, posed what became an enduring set of questions for higher education: "What societal purposes does higher education fulfill? Who benefits? Who pays?" The recommendations emerging from these questions anchored a sustained public investment in access to educational opportunity, based on the rationale that higher education serves not only the individual student but also society as a whole, by producing an educated citizenry and a productive national workforce.

Then in the 1980s, *A Nation at Risk* provoked an extended national debate about education and its consequences, both civic and economic. Though most of the resulting national dialogue focused on the declining quality of learning in the nation's primary and secondary schools, *A Nation at Risk* helped establish the context for similar scrutiny of higher education. Among the critical works these reexaminations yielded, perhaps the most influential was *Involvement in Learning: Realizing the Potential of American Higher Education*, which identified the need for higher expectations, for enhanced student involvement, and for the assessment of learning.

It is time again to take stock of higher education's purposes and the means for achieving them. During the past three decades major societal changes have occurred that have left no American institution untouched. The result is that colleges and universities confront a new landscape, one that has been transformed in large part by their own success in extending access and expanding knowledge. These advancements, combined with changes in demographics, technology, the nature of work, and the demand for education, have produced an environment that is both changed and uncharted. As they navigate what increasingly appear to be uncharted waters, American colleges and universities, along with the public agencies that support and monitor their efforts, find themselves relying on a kind of dead reckoning to plot their future course. The result, too often, is a reactive improvisation that allows untried organizational forms and incomplete information to mask potential risks while overstating likely benefits.

In this essay, we identify a set of research priorities that we believe will enable those most responsible for American higher education to shape the enterprise in more purposeful ways. We argue that too many of the maps and navigation instruments that were once effective guides are now obsolete, and that too much of higher education's traditional language no longer describes actual conditions, notwithstanding its continued rhetorical appeal. The very discrepancy between ideals and realities makes evident that higher education is less than it should be. As researchers, we invite those primarily responsible for higher education—both institutional leaders and public officials—to support the kind of research that will yield a fresh assessment of higher education's purposes and effectiveness, and to use the insights from that research to strengthen higher education's role in improving the lives of students and the vitality of society as a whole.

Too many of the maps and navigation instruments that were once effective guides are now obsolete.

Through the past six years the National Center for Postsecondary Improvement (NCPI) has helped identify many dimensions of a changing dynamic between higher education and its surrounding contexts. Our investigations have yielded a set of themes that, taken together, call for systematic inquiry into neglected issues at the heart of higher education's societal obligations.

The first is that higher education receives broad public support. As one illustration, in 1999, NCPI's Heads of Household Survey asked of a random sample of 1,000 adults, "Overall, how good a job are the colleges in your state doing?" Twenty percent rated higher education's performance as excellent, 59 percent thought it good, and 21 percent considered it just fair or poor. If "A" is excellent, "B" is good, "C" is fair and "D-F" is poor, then colleges and universities today are earning a respectable "B" in the public's opinion.

Second, despite some notable progress on the frontiers of reform since the 1960s and 1970s, higher education's core practices remain largely unchanged, rendering the enterprise less than it should be in today's environment. Many of the items heading the agenda for change in 1970 continue today. Critics regularly question the learning exhibited by college graduates. Moreover, achievement gaps in higher education persist between students of lower and higher socio-economic status, and across ethnic and racial groups. Despite repeated calls to recast the preparation of future faculty, no substantial reform of graduate education has occurred. Colleges and universities have made little headway in building a faculty that reflects the increased diversity of the students they educate. Moreover, while everyone agrees that improving educational performance entails more concerted interactions with primary and secondary schools, the linkages between them remain weak.

Third, higher education's performance for the most part has fallen short of fostering an engaged citizenry. Despite pockets of extraordinary activity and a growing commitment to service learning, recent evidence indicates that today's college graduates are actually less engaged in the civic life of the nation than were preceding generations. NCPI's Collegiate Results Instrument (CRI), which looked at graduates six years after they received their baccalaureate degrees, documented just how seldom recent college graduates have worked

on political campaigns, engaged in communitarian activity, or translated their commitment to social justice into action. More generally, the purposes of a college education have become primarily private and personal rather than public and societal. What has diminished is an awareness of the implicit social charter linking the nation's colleges and universities, both to one another and to the society as a whole. This shift has cast many campus leaders more as CEOs than as public servants, and the campus itself, less and less as a place of public purpose.

What has not diminished is the importance of a college education. Access to higher education is now as much a necessity as it was once a privilege. Indeed, it is this disjunction between societal necessity and institutional inertia that led us to the fundamental question anchoring this essay.

Access to What?

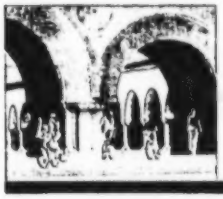
For 30 years, a staple of higher education policy in the U.S. has been the agenda of access and the panoply of federal, state, and institutional programs of financial aid that enable students to enroll in a college or university regardless of their financial means. In itself, however, the question of access considers only part of the equation. Like the annual rankings of institutions in the popular press, the focus on access places inordinate weight on the front end of the equation—the number and types of students enrolling—without considering the content and quality of education provided or the subsequent institutional impact on students' learning and later achievements.

Thus, the fundamental question facing higher education researchers becomes, "Access to what?" By asking higher education research to address this question, our aim is to spur a compelling set of inquiries about higher education's practices and settings: What are the programs, teachers, and teaching to which students are gaining access? What are the attributes of learning venues that offer the greatest promise for successfully educating students from diverse cultural backgrounds and different levels of academic preparation? What are the obstacles institutions encounter in seeking to provide the best possible academic programs and learning opportunities for students of all cultural and economic

backgrounds, and how do institutions overcome those obstacles? What is the role of technology in extending access and opportunity? How does higher education become more actively engaged in solving the issues that confront primary through secondary schools, to help ensure that students come to college with an adequate preparation for and understanding of what is expected of them in college-level study? Posing these questions presses beyond minimum college preparation thresholds and initial enrollments as the defining measures of success.

Such questions underscore the fact that the challenges confronting higher education today are no less important than at any previous time. For this reason alone, it is alarming that higher education is now perceived as less of a priority for public investment. Even though state tax revenue, in real dollars adjusted by the Higher Education Price Index, increased by 28 percent between 1978 and 1998, the proportion of state revenue allocated to public higher education declined by 27 percent, from 8 percent to 6 percent of total tax revenue. As more states realized they could not fund access as they had in the 1950s and 1960s, and struggled to meet increasing demands for funding welfare, K-12 education, health care, and corrections, they increased the financial burden on students and their families. While state appropriations per full-time equivalent student declined by 4 percent from 1978 to 1998, net tuition revenue per FTE student rose 66 percent.

We believe these changes in perception have themselves become powerful drivers that are reshaping the dynamics of colleges and universities—affecting, among other things, their capacity both to respond to the growing forces of markets and to fulfill the terms of the social charter that has historically linked American higher education to the nation it serves. Within this context, and in continuity with the historical purpose of furthering postsecondary access, we propose a set of research priorities that we believe will advance both policy and practice to enhance learning for students of all backgrounds.



Audiences and Priorities

In formulating our research priorities, we address two primary audiences: public officials directly responsible for public appropriations to higher education, and institutional leaders—including executives, trustees, and faculty—who decide how and for which purposes their institutions expend their resources. As the accountability movement has swept through state legislatures, policymakers have made concerted efforts to extend postsecondary access for diverse populations, as well as to effect improvements in student achievement and institutional performance. In seeking to realize these goals, policymakers have tried to influence institutional behavior through a variety of means, including productivity measures for faculty, high-stakes testing programs, and performance-funding mechanisms. In some cases, policymakers have adjusted admissions criteria and policies, aiming to create a more diverse student body, keep talented students from leaving the state, or ensure that employers have a supply of educated and competent workers. What policymakers have not found is a means of ensuring that public funds invested in higher education in fact promote effective learning and advance key obligations within the social charter. Nor have policymakers developed a meaningful link between their rhetorical support of K-12 education and their definition of the obligations colleges and universities bear for the quality of public schools.

Institutional leaders face equally compelling challenges, as they seek to make their campuses academically successful and financially viable. Across the extraordinary institutional diversity of American higher education, they work to reconcile the values and cycles of academic cultures within an array of changing societal pressures: changes in who attends higher education institutions, in how students pursue their studies, in the composition of the academic workforce, in technology and methods of instruction, and in the sources and methods of funding institutions. Among the many issues that compete for their attention, one in particular stands out: how to balance the growing pressures of market forces with the institutional mission of fulfilling public purposes.

In identifying research priorities for policymakers and campus leaders, we observe that in key areas, these two sets of stakeholders often do not agree—that in fact they bring to their respective tasks quite different understandings of what is possible, what is problematic, and why. What does link policymakers and institutional leaders, however, is their understanding that colleges and universities are not as effective as they could be—the respectable "B" notwithstanding. In this vein, we developed these research priorities to address the question, "Access to what?" Our aim is to identify major lines of inquiry that look forward, equipping policymakers and higher education leaders with better tools for improving the effectiveness of higher education in serving the full range of this country's student populations. In applying the insights and tools generated by research, policymakers and higher education leaders can in turn demonstrate how higher education research informs practice and serves the needs of students and society, thereby strengthening the case that such research is worthy of continued investment.

What does link policymakers and institutional leaders, however, is their understanding that colleges and universities are not as effective as they could be.

At the outset we want to make clear that we have not assigned relative weights to the proposed lines of inquiry. Simply including them calls out our sense of their importance. Further we have placed our primary focus on undergraduate education because both the number and diversity of students and the range of educational quality students experience are greatest in this arena. Finally, we question whether education and research should be viewed generally as joint products; we do not believe it is axiomatic that institutional investment in research will improve undergraduate education. With these caveats in mind, we identify three broad research priorities:

1. Improving Educational Quality and Institutional Performance
2. Balancing Market Forces With Higher Education's Public Purposes
3. Drawing New Maps for a Changing Enterprise

Under each heading, we describe the context that gives rise to each of these research priorities, articulate key lines of inquiry, and provide examples that address the distinct perspectives of institutional leaders and policymakers.

Improving Educational Quality and Institutional Performance

Improving educational quality and institutional effectiveness are not new challenges for higher education. Alas, as old as this saw may be, the larger truth is that too many colleges and universities still often miss the mark in terms of their performance. Even though education is their core business, they struggle to exhibit the qualities of a learning organization, including the willingness and ability to define priorities, measure progress, create feedback loops, and apply what is learned to improve products and services. In the past 30 years, discussions concerning higher education's quality have extended beyond the baseline concern of whether institutions have sufficient resources. The compelling questions now extend beyond inputs—that is, to the processes by which institutions apply resources to achieve desired goals, primary among them being the improvement of learning and educational achievement.

Most colleges and universities have not developed institutional definitions of educational quality. They do not have shared understandings of how to produce, measure, or calculate the cost of quality education for the diverse populations they serve. The seeming reluctance to build a common understanding or commitment in these matters yields an enterprise that is often unprepared for externally-mandated change. The growth in size and diversity

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of student populations, the increasing power of market forces to shape campus practices and priorities, the growing presence of new technology, linked with the expectation that institutions should do more to incorporate technology into their teaching and learning practices—all these factors make it incumbent on higher education to develop its own quality agenda.

In the course of our deliberations with higher education's external and internal stakeholders, we were struck by several sobering realities. In spite of 15 years of the assessment movement and increasingly vocal demands for improved student learning, few institutions actually use assessment results, and their fundamental practices of teaching have remained largely unchanged. Moreover, everyone—policymakers as well as institutional leaders—are all "in favor" of improvements in learning, yet there is little agreement about how to achieve them. Beyond that, today's academic workforce differs significantly in terms of qualifications, employment status, and work roles. These changes, and the lack of understanding about them and their implications, raise serious questions about the quality of instruction and advising that students receive.

From these observations, the basic concern for the question, "Access to what?" leads to several lines of inquiry that warrant research within the domain of improving educational quality and performance. How can colleges and universities become more effective learning organizations? How can they link knowledge about learning to the practice of teaching? And how can they manage the changing academic workforce?

What are the attributes of a culture of evidence in a higher education institution?

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Creating more effective learning organizations

In stressing the need for higher education institutions to become more effective learning organizations, we argue that long-standing organizational practices and individual behaviors need to be addressed in new ways. In recent years, researchers have made both conceptual and empirical contributions to the general understanding of how organizations can improve their own practices through reflection upon their outcomes. A central concept from this work is the development of a culture of evidence—an environment characterized by a willingness not only to create measures and collect data on outcomes, but also to use this information to redesign practices for improving quality. To begin this process, we believe that institutional leaders and policymakers should focus on the following:

Institutional Leaders

What are the attributes of a culture of evidence in a higher education institution? How does a university or college cultivate these qualities at all levels of the organization, from educational processes to academic management? Which administrative structures and actions effectively counter an aversion within organizations to measuring results? What kinds of process improvements do exemplary departments or units make in response to assessment-based feedback?

Policymakers

Which incentives change institutional behavior so that data inform practice? How and when do external accountability measures align with internal quality improvement processes? What policies motivate institutions to define and apply measures of performance that are relevant to public purposes as well as to institutions? In what circumstances and for what purposes do different types of performance-based budgeting and resource allocation systems produce effective results?

Linking knowledge about learning to the practice of teaching

However natural it is to suppose that teaching should be informed by knowledge of how learning occurs, this principle seldom aligns with actual practice in higher education. During the 1990s, a considerable body of research was produced on the neurological processes within the brain that produce learning, as well as research by psychologists on situated learning as it occurs in different contexts. While research has yet to define clearly under what circumstances technological innovations improve efficiency in learning, the current base of knowledge has potential to enhance teaching and learning if applied in the context of particular disciplines. Unfortunately, institutions and academic departments have seldom taken responsibility for applying the findings of such research to pedagogical practice, or for re-aligning promotion and compensation criteria so that individual faculty can do so without jeopardizing their career advancement.

In recent years, instruments have been developed to assess students' cognitive learning and affective development. For example, two instruments— the National Survey of Student Engagement and the Collegiate Results Instrument— provide a more substantive basis for understanding the relationship between students' undergraduate experiences, their learning in college, and their later achievements in college and after graduation. A similar instrument now being developed is the Community College Survey of Student Engagement, which also holds out the promise of enabling institutional leaders to engage their campuses in focused discussions of educational quality. So far, however, institutional leaders in both two-year and four-year settings have had difficulty generating campus-wide discussions of what such findings suggest for teaching or curriculum development within or across disciplines.

Our primary concern is to ensure that what is currently known about learning will inform the design of curriculum and other educational practices in higher education. Making progress on the learning agenda means addressing the learning needs of all students, who collectively represent a substantial range of backgrounds and academic preparation. Hence the importance of incorporating

learning assessment techniques into the practice of teaching. While assessment programs imposed in several states have pressed institutions to develop better measures of student learning, NCPI research has shown that these programs have not been successful. And while institutions have invested heavily in electronic technology, they have made little progress in applying the full capacities of these tools to improve teaching and learning. Higher education has never had well-developed processes for linking the purposes of teaching to pedagogical methods and evaluation techniques; advancements in communications and information technology have made the task of developing such processes even more complex. At present there is considerable uncertainty within the enterprise about how to invest in technology in ways that enhance teaching and learning. The research questions we ask of teaching and learning, with technology as a particular case in point, derive from this sense of pressing needs and missed opportunities.

Institutional Leaders

How do institutions support and motivate their faculty to apply what is known about learning to curriculum and pedagogy in their fields? What are the most promising ways of identifying learning styles of students and relating those factors to research on learning? How do research findings on learning inform the design of educational processes and student assessment measures? More specifically, what impact can or should research findings have on either the design or delivery of new curricula? What design principles and criteria generate the most effective approaches for applying technology to enhance learning?

Policymakers

Which policies, incentives, and resources support institutions and their faculty to develop better measures and instruments of student learning—and use them in their teaching? What policies accelerate the application of research on learning to the practice of teaching in higher education institutions? Which information technologies promote learning efficiencies and under what circumstances? To what extent do external accountability mandates align with institutions' own internal quality processes, and what are the effects of misalignment?

The changing academic workforce

Powering the need for this line of inquiry is a transformation in the profile of academic professionals. Through the past decade, the composition of the academic workforce has undergone a change no less dramatic than the changes in skill requirements of work or the kinds of education students seek. Some changes in the academic workforce have been occasioned by technology: faculty members, as content experts, find themselves working in conjunction with programmers, graphic artists, course designers, and webmasters to craft learning materials and educational experiences for students. Beyond this change in the workplace itself, the increased press for accountability, the need for a more diverse faculty, changing student demographics, uncertainty about funding priorities, and the decline in the proportion of tenure-line faculty all contribute to the transformation of academic work and who does it.

Within the enterprise, the growing disposition is to view responsibilities once considered integral to the faculty role as discrete tasks to be distributed across the academic workforce as needed. One explicit dimension of this unbundling in many universities is the willingness to view research and teaching as separable activities. Market environments have always rewarded prestige, and one effect of the prestige factor in research achievement has been to reduce a tenure-line faculty member's accountability in the areas of teaching and advising. Many of those who fulfill an institution's teaching responsibility hold part-time, adjunct, and non-tenure track term appointments. In assuming some of the responsibilities of tenure-line faculty, these academic professionals give the institution flexibility to brace against the fluctuations of the marketplace and the politics of funding public institutions. At the same time, this flexibility has yielded a different kind of academic workforce: more than 40 percent of faculty across higher education are now part-time. In the past three decades the proportion of part-time faculty has doubled. In addition, more than half of full-time appointments made during the 1990s were non-tenure track term appointments. This shift has taken place across all sectors, including research universities.

These trends are certainly not confined to higher education; indeed, they exemplify a larger transformation that is occurring in the American workforce and in the nature of work. Yet the imprint of these trends on the academy is clearly discernible. Working concurrently with the traditional professoriate is a contingent workforce,

whose employment is contracted on a fee-for-service basis. Their involvement in academic governance and commitment to multiple institutional purposes are seldom reinforced, either structurally or normatively. Within institutions, the coordination of work among different types of instructors, course designers, and advisors may be minimal. Research is needed to understand more clearly how this changing workforce can be organized and prepared more effectively. Such research will provide insights into the challenges that the unbundling of the faculty role creates in terms of ensuring institutional leadership, instructional quality, and organizational effectiveness.

The effects of unbundling are areas where the perspectives of campus executives and policymakers are likely to converge with one another yet diverge from those of faculty leaders. Too long ignored is the inherent tension between the drive for managerial flexibility and the professional protection provided by tenure and unionization. This persistent tension produces an institutional stalemate where the hiring of part-time and off-track faculty has become an ad hoc managerial solution yielding uncertain consequences for educational quality, curricular innovation, and governance.

Institutional Leaders

What strategies are most effective for preparing and managing the new academic workforce? Which roles require full-time, tenure-line faculty, and which are suitable for non-tenure line academic professionals? What are the best ways of organizing this workforce to ensure the highest quality education? How would educational quality be improved if faculty development were given a higher priority? What conditions are required to advance and retain a diverse academic workforce? What conditions are required for effective governance?

Policymakers

What policies support the development of a coherent, albeit more clearly differentiated, academic workforce? To what extent does disaggregating the faculty role into its component parts make higher education institutions more accountable and cost-effective? Under what conditions do adjunct faculty—either because of or despite their engagement outside the academy— promote student learning and civic engagement?

Balancing Market Forces With Higher Education's Public Purposes

While our initial focus in pursuit of the question, "Access to what?" emphasizes the need to improve institutional performance, this second focus addresses the increasing power of market forces to reshape institutional practices and priorities. Historically, higher education has always wrestled with outside authority, first the crown, then the church, then the corporation. What is new today is the central role that markets and financial pressures play in this dynamic.

As with the transformation of the academic workforce, the ascent of market forces mirrors changes occurring in every facet of society. The increasing impact of market forces on the academy stands in sharpest relief when considered against the backdrop of higher education's social charter. This charter affirms that colleges and universities have a vital role in ensuring the economic strength and competitiveness of the nation through the production of skilled workers. Beyond this practical function, however, higher education serves the public interest by creating an educated citizenry, by preserving and advancing knowledge in all fields regardless of their market currency, and by fulfilling the public expectation that a higher education should be accessible to any student who exhibits a desire and commitment to learn.

Public investment in higher education, through state support of public institutions and federal funding of student financial aid and research, has historically been understood as a fitting means of achieving such societal purposes. During the past three decades, however, policymakers have increasingly allowed markets to replace direct public investment as an instrument of achieving the public good. Here it is important to note two additional facts: first, these changes occurred while enrollments were increasing; and second, most institutions more than compensated for the decline in state appropriations by increasing revenue from tuition, sales, services, and research. State appropriations declined from 44 percent of total public college and university revenue in 1978 to 33 percent in 1997. One problem is that higher education's system of cross-subsidization makes it all but impossible to understand how an institution actually spends the money received in the name of undergraduate education. When coupled with the difficulty of measuring educational quality, this raises serious questions about market efficiency. Additionally, an increased reliance on revenue from tuition and fees, combined with a gradual movement from grants to loans in federal programs of student financial assistance, have shifted much of the burden of financing higher education to students themselves. Not surprisingly, many Americans now perceive higher education as more of a private than a public good. The consequences of these shifts warrant special scrutiny.

Responding to this new environment, higher education institutions have learned that entrepreneurial prowess and successful market performance are essential to fulfilling their own aspirations. Public universities and colleges now emulate private institutions in their jockeying for competitive positions in niche markets and in the aggressiveness of their fundraising efforts. Institutions turn to the market to sustain the viability of their existing programs and to define their conceptions of what is possible, focusing on short-term interests and gains in their financial and human resource decisions. To be sure, there are many ways in which markets make universities and colleges more directly responsive to societal demands. Yet the result is a growing tension between the tenets of an institutional mission and the forces exerted by markets. Colleges and universities find it increasingly difficult to be both mission-centered and market-smart. Absent strong counter-pressures, the institutional pursuit of entrepreneurial opportunity can turn institutions into holding companies in which the center has diminished capacity to shape the activities of its own perimeter.

What higher education requires is a strategy that enables institutions, even as they are increasingly privately financed, to remain publicly committed. Both institutional leaders and policymakers need a fuller understanding of how market forces affect the decisions and culture of campus settings. Little is known about how these changes in institutional practices have altered colleges and universities, in terms of either the faculty reward structure or the learning environment for students. Research needs to examine the impact of the revenue-generating imperative on campus management practices and across academic fields. Without such an understanding, colleges and universities run the risk of becoming merely businesses, paying only symbolic homage to the social charter that distinguishes them from the for-profit enterprise.

The lines of inquiry we propose examine the influence of market forces as well as the nature of the tension between market forces and broader public purposes.

Institutional Leaders

What happens when colleges and universities either ignore or misunderstand market forces? How do institutional or academic purposes change when a university or college gravitates toward market values? How do institutions maintain public purposes and civic values in the face of financial pressures? What happens to the management culture, resource allocation, and traditional academic governance when markets exert a stronger influence on institutional decision-making? What is the impact of market forces on academically important fields that do not have a lucrative proximate market? Under what conditions do market forces work against an institution's commitment to building a diverse faculty? Similarly, under what conditions do market forces work against an institution's commitment to building student diversity?

Policymakers

How does increased reliance on successful market performance affect an institution's commitment to serving public purposes? Under what conditions do market forces work against an institution's commitment to diversity? To what extent does the net societal benefit increase or decrease as higher education institutions become more entrepreneurial? What happens to legislative influence as

state revenue constitutes a declining share of public institutions' revenues? What ground rules ought to apply when publicly funded colleges or universities seek to privatize?

Given the societal proclivity to regard higher education as a private good and students as consumers, research needs to examine the impact of students' exercising their prerogatives as shoppers.

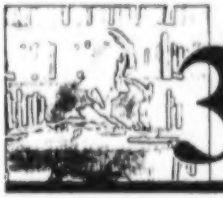
Institutional Leaders

What happens to student achievement as transcripts and curricula come to reflect student tastes and consumer choices more than they reflect an institution's conviction about what students should know? How does student consumer interest in courses and subjects affect the status of different academic units within institutions? To what extent has convenience become a primary determinant of student choice and, in turn, institutional success?

Policymakers

What is the return on public investment in higher education when students increasingly define their own paths of study, largely apart from the degree requirements of universities and colleges? Given that students increasingly "swirl" through multiple institutions, how can public agencies take account of student learning and degrees-awarded as well as facilitate the portability that students seek? What are the consequences for individuals and society when students lack reliable information about educational choices—of the kind, for example, that a viable *Consumer Reports* provides? How does the combination of working and schooling affect a student's acquisition of the knowledge needed for work and for citizenship?

What higher education requires is a strategy that enables institutions, even as they are privately financed, to remain publicly committed.



3 Drawing New Maps for a Changing Enterprise

Our interest in the question, "Access to what?" has highlighted the disjuncture between the current state of higher education, on the one hand, and the traditional conceptions and language that inform people's thinking about the enterprise on the other. Hence, our third research priority calls for research to create new maps for a changing enterprise, without which higher education institutions will continue to lack a reliable frame of reference for understanding how and when things have changed or when and how to chart a new course.

In the 1970s, higher education developed a system for navigating based on institutional typologies and analyses of revenues and expenditures that presumed a stable internal governance system, a reasonably well understood instructional production function, and an identifiable set of external policymakers. During the last 30 years, that framework has shaped the federal government's program of data collection for colleges and universities. While dealing with changing student demographics, this definitional framework has been overwhelmed by other shifts in patterns of student enrollments and in institutional practices, changes that now characterize American higher education. Consider, for example, the growing list of pressing questions relevant to higher education's current and future operations for which the Integrated Postsecondary Education Data System (IPEDS) neither

requests nor provides data: the use of technology, the spread of e-learning on campus and through distance education, the spread of distributed learning, the increase in the number of programs jointly marketed particularly to populations outside the United States. IPEDS is similarly silent on the often imaginative financing mechanisms and real estate transactions colleges and universities are adapting to their current needs. And then there are those topics that IPEDS, and by extension most current mappings of higher education, have never addressed, in particular the resource utilization, financial profiles, personnel, and instructional offerings of academic departments. IPEDS reports institution-wide information about faculty but does not capture faculty data by department; for example, data about how departments use adjunct and part-time faculty who are increasingly central to the provision of undergraduate instruction.

The problem involves more than numbers—though there is a need to count things to highlight and ameliorate the disjuncture between concept, perspective, and changed reality. Over the past three decades, higher education has changed dramatically in terms of the students it serves, just as students' own purposes and paths through higher education have changed. As noted previously, the academic workforce has also been transformed to the extent that no one can presume to know who is teaching what to whom. Despite these changes, the image of the academy that most public officials, parents, faculty, and administrators retain is one that more closely resembles campuses during the time when they themselves were undergraduates. One consequence of not gaining a fuller understanding of just how much higher education has changed is that the terms of reference come to mean different things to different people. What, for example, does the term "core curriculum" mean today? What is meant by "faculty," or "student?"

The organizational dimensions of the enterprise require a parallel rethinking, leading to a redrawing of the maps that institutions use to chart their futures. Colleges and universities of all types are extending their reach, for example, into new collaborative agreements—with for-profit as well as non-profit organizations—without precedents to guide them. Some of the biggest lacunae concern public comprehensive universities and community colleges; while they have enrolled the majority of higher education students and advanced to the leading edge of experimentation, these institutions have not captured a commensurate share of researchers' attention.

The result of these changes—in students, in faculty, in organizational initiatives, and in society itself—is a landscape that differs in many ways from the past. Research is required to devise new maps, using new definitions and new kinds of data to understand a changing terrain. The new maps we envision will enable institutional leaders and policymakers to examine existing data through different lenses and to update what is known about institutional structures and practices.

Institutional Leaders

Who is teaching what to whom across the country's different types of institutions? How well do the demographics of faculty align with those of the student body? What types of instructional and delivery mechanisms are serving which students with what results? Do the institution's educational programs address differences in learning styles or in length of time to degree that result from a broader range of student backgrounds and ages? What administrative structures and actions support faculty to address differences between outdated conceptions of undergraduates and the students currently enrolled? How has the balance of purposes, programs, and resources changed in different types of institutions? How has this balance changed within and across departments of single institutions?

Policymakers

Who is being left out of this reconfigured enterprise? Which policies constrain or promote the persistence and degree completion of underrepresented students? How well are colleges and universities serving the needs of students who pursue postsecondary education intermittently? How extensive are institutional collaborations—across geographic borders, across the public-independent institutional divide, across the boundary separating for-profit businesses and nonprofit institutions? Which investments in technology and distributed learning are paying dividends? Which experiments are successful inter-organizational collaborations, whether in sharing administrative or academic resources? What new types of institutions are emerging and what are their implications for the policy arena?

Bearings for the Future

The changes occurring inside higher education institutions are directly linked to changes in society itself. Higher education has confronted a range of forces in the past 30 years: globalization, changing demographics, the growth of knowledge, technological advancements, the rise of market forces, and growing accountability demands. Each of these forces, however familiar, continues to pose intensified challenges to higher education institutions. Globalization necessitates that colleges and universities prepare their students to be citizens of the world, who understand the serious challenges of competitiveness and interdependence that come in its wake. Globalization also prompts institutional leaders and policymakers alike to rethink their reach and their boundaries—a focus that has become increasingly salient as the World Trade Organization defines the extent to which distributed education is to be a freely traded good. The changing demographics of student enrollments challenge institutional leaders and policymakers to reconsider what it means to serve the needs of a diverse population. The growth of knowledge instills in institutions the need to adapt their teaching and research to keep pace with new developments in all fields of study. Advancements in technology recast the ways that institutions create, preserve, and disseminate knowledge.

Market forces impact both the nature and the outcome of decision-making in universities and colleges. And growing accountability demands compel institutions to demonstrate gains in organizational efficiency and quality as well as in student learning outcomes.

We believe that sustained pursuit of the three research priorities identified in this essay will generate essential information and a common language, not only to consider the constraints and unexplored opportunities of these transforming forces but also to enable higher education to exert a more forceful voice in the national dialogue about society's goals and ideals. Knowledge gained from this research will provide navigational bearings so that campus leaders and policymakers can advance beyond dead reckoning, as they redirect the enterprise to reach its full capacity while retaining the public's trust. In fully attending to our proposed lines of inquiry—improving educational quality and institutional performance, balancing market forces with higher education's public purposes, and mapping the enterprise—higher education research can advance the process by which American colleges and universities successfully address the question, "Access to what?" The knowledge from this research and subsequent institutional improvements will allow the nation as a whole to claim with greater confidence that it is fulfilling its promise of providing high quality higher education to all, no matter who they are or where they choose to enroll. We believe, as well, that fulfilling this promise will require higher education researchers to reach out, not only to funding agencies but also to institutional leaders and policymakers as powerful allies in demonstrating that research itself can directly improve educational quality, institutional effectiveness, and thereby the lives of students and society.

Higher education is a national resource critically important to both the students it educates and the nation it serves. A fundamental challenge to all higher education stakeholders is to affirm that it is in the national interest to invest in research that helps guide American universities and colleges to retain their strength, fulfill the terms of their social charter, and re-capture the legislative imagination that higher education is a valuable enterprise with an essential role of ensuring the nation's well-being.

A Collaborative
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